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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,203	08/09/2000	Satoshi Ogata	13409.1USWO	7904

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EXAMINER

SAVAGE, MATTHEW O

ART UNIT PAPER NUMBER

1723

DATE MAILED: 12/05/2001

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/600,203

Applicant(s)

OGATA ET AL.

Examiner

Matthew O Savage

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1723

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4-45811 in view of EP 466,381.

With respect to claim 1, JP '811 discloses a strip, non-woven fabric 3 wound around a perforated cylinder 4 in twill form (see FIGS. 1 and 2). As best understood, JP '81 1 fails to specify long thermoplastic fibers with fiber intersections that are adhered. EP '381 discloses filter media including long thermoplastic fibers with fiber intersections that are adhered and suggests that such an arrangement has stabilized filtration properties. It would have been obvious to have modified the JP '811 filter so as to have included long thermoplastic fibers with fiber intersections that were adhered in order to provide a filter media having stabilized filtration properties.

Regarding claim 2, EP '381 discloses a thermoplastic adhesive composite fibers including a low melting point resin and a high melting point resin with a difference in melting point be 10 degrees C or more (see lines 39-44 of col.6).

Concerning claim 3, EP '381 discloses the low melting point resin as being linear low density polyethylene and the high melting point resin as being polypropylene (see lines 39-44 of col.6).

As to claim 4, EP '381 discloses the fabric as being bonded by thermal compression (e.g., via heat embossing process or a calendering process) obviously carried out by means of a heat embossing roll as well known in the art (see lines 50-52 of col. 4).

Art Unit: 1723

Regarding claim 5, EP '381 discloses the fiber intersections of the fabric as being bonded by a hot blast (e.g., via a hot air process, see lines 50-52 of col. 4).

Concerning claim 6, JP '811 discloses the strip as being twisted (see the abstract).

Regarding claim 10, JP '811 and EP '381 fail to specify the recited void rate, however, such a modification would have been obvious in order to optimize the filter for a particular application.

Concerning claim 11, JP '811 and EP '381 fail to specify the slit width and product of the slit width and basis weight, however, such a modification would have been obvious in order to optimize the filter for a particular application.

Claims 7-9 are rejected under 35 U.S. C. 103(a) as being unpatentable over over JP 4-45811 in view of EP 466,381 as applied to claim 1 above, and further in view of JP 1-115423.

With respect to claim 7, JP '811 and EP '381 fail to specify pleated matter having 4-50 pleats. J P '423 discloses the concept of pleating an analogous non woven strip 3 so as to have 4-50 pleats (see FIG.6) and suggests that such an arrangement increases the strength and dimensional stability of the filter media (see the abstract). It would have been obvious to have modified the combination suggested by JP '811 and EP '381 so as to have included pleated matter as suggested by JP '423 in order to increase the strength and dimensional stability of the filter.

Regarding claim 8, JP '423 discloses pleats that are non-parallel because the pleats extend along non-linear paths.

Concerning claim 9, JP '811 and EP '381 fails to specify the recited void rate, however, such a modification would have been obvious in order to optimize the filter for a particular application.

The declaration under 37 CFR 1.132 filed 9-25-01 is insufficient to overcome the rejection of claim 1 based upon JP 4-45811 in view of EP 466,381 as set forth in the last Office action because: 1) comparative example A set forth in the declaration does not include the same structure as the combination suggested by the JP '811 and EP '381 references; instant claim 1 does not exclude the fiber structure suggested by the EP '381 reference.

Applicant's arguments filed 9-25-01 have been fully considered but they are not persuasive.

Applicant argues that EP 466,381 discloses fibers that are only 10 cm long and therefore fails to disclose "long fibers" as recited in instant claim 1, however, it is held that 10 cm fibers are considered "long fibers" when compared to fibers that are, for example, only 1 cm long. In addition, it is held that melt blown fibers incorporated by the EP '381 are long fibers since no step of cutting the fibers has been specified in the reference.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1723

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O Savage whose telephone number is 703-308-3854. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda W. Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3602 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Application/Control Number: 09/600,203

Page 6

Art Unit: 1723

M. Savage

Matthew O Savage
Primary Examiner
Art Unit 1723

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November 30, 2001